

AN
INAUGURAL DISSERTATION
ON
PUERPERAL FEVER:

SUBMITTED TO THE CONSIDERATION OF THE
Honourable Robert Smith, Provost,
AND OF THE REGENTS
OF THE
UNIVERSITY OF MARYLAND.

BY JAMES ANDERSON,
OF HARFORD COUNTY, MARYLAND.
MEMBER OF THE BALTIMORE MEDICAL SOCIETY.

To you ye delicate I write; for you
I tame my youth to philosophic cares,
And grow still paler by the midnight lamp.

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TO
CORBIN AMOS, M. D.
Of Baltimore.

DEAR SIR,

THE period of time in which I shall leave you, not being far distant, permit me thus publicly, before that event, to declare those real sentiments of esteem and respect which I do, and ever shall, entertain for you personally. To these, and even more than I am capable of expressing, I conceive you to be entitled in the most eminent degree; not merely on account of your attention towards me in a private point of view, but more especially for the particular concern which you so uniformly displayed in promoting the accomplishment of my medical pursuits. Being about to undertake the duties of a profession, of all others the most important and arduous in its nature; permit me to assure you, that your principles shall stand before me as a perfect model.

That you may long continue to be an unfeigned friend of humanity, and that your happiness and prosperity may continually increase, are the most ardent wishes of your sincere friend and pupil,

JAMES ANDERSON.

TO THE
REV. GEORGE LUCKEY,
Of Harford County.

HONOURED SIR,

PERMIT me thus publickly to dedicate to you the first feeble efforts of my pen, as a slender tribute of gratitude for the many favours which you had the goodness to confer on me, whilst I had the honour of pursuing my early studies under your direction.

That you may continue to adorn that public and useful station in which you are providentially placed, and long live an advocate and pattern of solid and pure religion, and that your many good works on earth may finally meet an ample reward in heaven, is the sincere prayer of

THE AUTHOR.

AN

INAUGURAL DISSERTATION.

OF the long catalogue of diseases to which the human system is subject, we observe none which deserve our particular attention more than puerperal or child-bed fever. I shall not however as is customary, notice at length the first accounts we have of it; the propriety or utility of such a detail being here doubtful. We find the term puerperal fever, mentioned by Dr. *Strother* in his *Criticon Februm*, and the writings of *Hippocrates*, contain an accurate description of most of the symptoms proper to this fever, under the appellation of suppression of the *lochia*, and it is also described in a very similar manner by *Avicenna*, and in more modern times, by Drs. *White*, *Denman*, *Hulme*, *Leake*, *Kirkland*, and others. This disease has not been described under the present appellation, and considered as a fever of a distinct kind, until the early part of the last century, since that period, we have had many valuable publications on the subject.

This disease, as its name implies, is peculiar to the puerperal state, and generally commences on

the second or third day after parturition; in some cases it does not appear until the eighth or ninth day, and indeed there are instances on record, where it has made its appearance as late as five or six weeks after delivery. It appears also by the writings of Dr. *Clark*, that it sometimes commences even before the act of parturition.

It commonly commences with a rigour or chill, which continues for a longer or shorter period, and is succeeded by fever, attended in its early stage with a very frequent pulse, though sometimes the pulse is full and often tense. This order is subject to many exceptions, as the fever sometimes comes on in an insidious manner, without previous chilliness, or any other premonitory symptoms.

Daily exacerbations are sometimes discoverable, and are frequently preceded by a rigour, although in some cases the rigour or chill is not to be observed.

At the commencement of the fever, more or less disorder of the alimentary canal usually occurs, and the patient is very frequently affected with nausea, and sometimes vomits a bilious or dark foetid matter, and is frequently affected with a profuse discharge from the bowels, which is sometimes so copious, as to bear a striking similarity to a genuine *cholera*.

The head often partakes of the general disturbance, and is affected with a considerable degree of pain, more especially about the forehead, and

eyebrows; *vertigo, tinnitus aurium*; and sometimes, though seldom, delirium attends; about this period of the disease, the patient generally complains of pains in the lumbar, and iliac regions; but more particularly in the abdomen; these are at first slight, but soon increase, and the abdomen often swells to a considerable degree, and becomes nearly, or quite as large as before delivery. In such cases the breathing becomes much oppressed; indeed, in every instance, the respiration is more or less affected, owing to the action of the abdominal muscles, which are concerned in that function, being productive of pain.

The abdomen soon becomes so exquisitely sensible, as to render the slightest touch, or even the pressure of the bed clothes extremely painful.

The *lochial* discharge is much diminished, and emits a foetid odour, or is changed in its appearance, and gradually ceases.

The secretion of milk is much diminished and often arrested.

The urine is dark coloured, depositing brown sediment, and is evacuated frequently with much pain. In some instances it is altogether suppressed.

In this disease the thirst is usually very great, the tongue white and moist at the commencement, and continues to present these appearances until a short time before death; but commonly before that event, it changes its colour to a dark brown, being sometimes tinged with a mixture of yellow-

ness, and is dry and rough to the touch. These symptoms continue for a longer or shorter period, in different instances.

At this period of the disease it seems to take on a typhoid form, and is attended with an increased frequency, quickness and irregularity of the pulse, and a considerable diminution of its force; to which are usually added partial and clammy sweats, *petechiæ*,* miliary eruption, *aphtha*, in the mouth and fauces, great irritability or torpor of the stomach; *singultus* and an involuntary discharge of the *fæces* and urine, *coma*, convulsions and death.

The duration of the disease is various. When its termination is fatal, it is in general, on some day from the fifth to the eleventh or twelfth, after its accession; however, there are instances of its having terminated fatally during the first rigour, and not unfrequently within twenty-four hours.

A favourable termination of the disease is tedious, and rarely or never perhaps before the twelfth, sixteenth or twenty-second day; and in some cases not until a more distant period.

It does not appear to be the opinion of medical writers, that the occurrence of this disease, is influenced by any particular season of the year; and indeed we find but little notice taken of it by au-

* The writers of Europe, mention *petechiæ* as a concomitant of puerperal fever; for there it assumes a low typhus state, and bears in a great degree the character of that disease; but such appearances are very rarely seen in our country, where the disease is more inflammatory.

thors, however, we think it more than probable, that this fever is sometimes induced by a particular constitution, or rather impregnation of the atmosphere.*

On dissections, by different authors, there has usually been found in the abdomen, a considerable quantity of fluid, similar to that met with in peritonitis; and not unfrequently containing portions of coagulated matter. The omentum and peritoneum, have been found inflamed, and in some cases gangrenous. The uterus and its appendages, as also the intestines, in many instances have appeared considerably affected, and sometimes the thoracic *viscera*, have been found diseased in a similar manner.

The *diagnosis* in child-bed fever is generally easy, as the symptoms are such as seldom or never occur in other puerperal affections; the pathognomonic symptoms are generally pain, swelling, and a very exquisite sensibility of the abdomen, attended with an unusual frequency of the pulse. It may be of importance to distinguish this disease from simple peritonitis, which may in general be done by attention. In puerperal fever, the abdominal pain is not the most promi-

* During the prevalence of such diseases as arise from marsh effluvia, in subjects who may have lately lived in an impure atmosphere, puerperal fever will discover some of the appearances of remitting fever; such as increased secretion of bile, a remitting type, pains of the extremities, a puking of bile, &c.

nent symptom. There is more despondency, debility, and head-ache, less heat of the skin, less thirst, and less flushing of the face, than is usually found in peritoneal inflammation.

Prognosis. It is difficult to form an accurate prognosis of this disease, it is however most frequent, and most fatal in hospitals. In private practice it is less fatal, though still attended with a considerable degree of danger. When it commences soon after delivery, and continues its progress with violence for a few days, our hopes of a favourable event will often be disappointed, and the impending danger may usually be foretold by the uninterrupted progress of the symptoms, and by returns of the rigour. An early disorder of the mental faculties, is always a very unfavourable symptom. A diarrhea, immediately succeeding the attack, in general contributes to the abatement of the complaint, and sometimes proves critical; so likewise does spontaneous vomiting. Profuse sweats which follow the cold stage, have very often been completely critical. Fresh eruptions of the *lochia* are always favourable symptoms, and are the certain signs of amendment. A subsidence of the abdomen after copious evacuations, with a moist skin, is always favourable; but this circumstance, without evacuations, and with a dry skin, is indicative of the utmost danger.

Remote, or predisposing causes. In enumerating these causes, I have no hesitation in placing

debility, or irritability, whether constitutional, or local in consequence of debilitating causes acting on the body, either directly, or indirectly, as the *first* and most prominent. It is remarked *cæteris paribus*, to attack those women most frequently, who have been reduced by previous indisposition.

Secondly: Depressing passions of the mind, such as grief, fear, disappointment, and other debilitating passions, have been generally, and we believe, justly, enumerated as fruitful sources of this disease. It would be needless to multiply the authority we have for adopting such an opinion. However we will cite a case related by *Dr. Leake*. The Doctor after enumerating several instances, where the passions and depressing emotions of the mind, had induced the disease; says, "One of them was the case of a baker's wife in Westminster, who remained well until the fourth day after delivery; but being suddenly disturbed with some religious scruples, she was violently seized with this fever, attended with delirium which carried her off; notwithstanding the uncommon attention paid to her safety, by an eminent physician, who was called at my request, and with whom I wished to have consulted, but was accidentally prevented by being sent for out of town." There have been several similar instances, related by *Dr. Kirkland* in his treatise on child-bed fever.

Thirdly: An impure atmosphere. It would

be unnecessary here to enter into an enquiry relative to the all powerful agency of certain states of the air, as yet not clearly defined, in the production of the maladies, which affect mankind. We are not however, left to reason on this subject from analogy alone, and without any other conductor. These important conclusions, rest on a more solid and substantial basis; for repeated experience has fully ascertained, that certain states of the atmosphere have great influence over this complaint. It is however most prejudicial to those women, who are confined in hospitals; particularly in moist weather, owing perhaps to the hospitals being kept more close, and less ventilated in moist, than in dry and clear weather, thereby rendering the air very impure and unfit for respiration.

Fourthly and lastly: We may add an inattention to regular alvine discharges and disturbed rest; indeed every kind of intemperance is supposed to predispose in a peculiar manner to this disease, by inducing debility. Whether in this state of the system, excitability be positively increased or not, I am not able to determine; to me however, it is sufficient to know, and observe, that debility, the result of an excess or deficiency of stimulus, does certainly predispose to this fever.

Exciting causes. These are such as acting on the body in a state of pre-disposition, produce the disease. They are various; as excessive

fatigue, either of body or mind, great heat, too liberal use of stimulating draughts, during or after parturition; alternate exposure to heat and cold, effluvia generated from neglect of cleanliness. The sudden removal of pressure at the time of delivery, giving occasion for a greater proportion of fluid, than circulates in a natural state, to rush upon some particular parts, and thereby forming slight obstructions, may be mentioned as a very frequent exciting cause of this disease. Imprudent management at the time of labour, especially rude treatment of the *os-uteri*, and a violent or hasty separation of the *placenta*, will often give rise to this complaint. Indeed every cause capable of producing either local inflammation, or fever, under any circumstances, will at this time be followed by bad effects; and any disturbance raised in the constitution, after delivery, will be as it were invited to parts already in an irritable state, from the violence which they have lately experienced.

Should a suppression of the *lochia*, an impeded secretion, an absorption, or metastasis of the milk, and an absorption of pus, be enumerated among the exciting causes of puerperal fever? This subject has been much contested among physicians; I am, however, induced to believe they should not; or at least I have never met with an instance of the disease which appeared to me to be attributable to either of them.

THE METHOD OF CURE.

In the cure of puerperal fever, the utmost attention is required by the physician who values the safety of his patient, and his own reputation; this attention is more especially required at the commencement of the disease, and it is a matter of the highest importance always to be actuated by a determination to lose no time in administering such means as will insure safety to his patient. The loss of a few hours at the commencement of this fever, and omitting to administer proper remedies in its early stage, may leave the patient in a state from which no skill, no human power, can extricate her.

In enumerating the remedies proper to be employed in the cure of this disease, I shall treat of them under distinct heads.

First: Bloodletting. This remedy has been advocated by the most eminent physicians, while others equally intelligent have expressed more than ordinary fears and apprehensions, with respect to its use, in child-bed fever. To preclude, or advise, the use of a remedy upon mere authority would be improper. But with due deference to the opinions of those gentlemen, who are so strenuously opposed to bloodletting in puerperal fever, I must beg leave to differ from them in practice; I am urged from experience to become its advocate. And from the belief that child-bed fever, is truly an inflammatory disease;

and as such early bleeding is the only remedy that can give the patient a chance for her life, especially if the inflammation be violent; for, where bloodletting has been neglected, it more frequently terminates by fatal suppuration than in any other manner.

Indeed from the strictest attention to the several symptoms and circumstances of the disease, without shaping a theory to coincide with any particular method of practice, the reasons for bloodletting in it, are as manifest and cogent as in the pleuritis itself.

The most particular objections advanced by practitioners against bloodletting in this disease, are as follows: "Considering the loss of blood after delivery, and subsequent *lochial* discharges, it would exhaust the patient's strength too much; especially as she is usually enjoined abstemious diet for several days after; that, by lessening the patient's strength, it would prevent a crisis, increase irritability of the body, and aggravate all the symptoms of this fever."

But these are groundless objections, and plainly contradicted by the practical phenomena of the disease, for the violence of the fever, and symptomatic *diarrhœa* arising from it, will be found to sink the patient's strength much more than the loss of blood, which on the contrary, by removing the tension and pain from the bowels, will have the effect of an *anodyne*, and more safely abate that discharge, than opiates or astringents,

both of which are highly improper at the commencement of this disease, and are never required where bleeding has been opportunely used in proper quantities, which is seldom the case.

Bleeding by diminishing the quantity and force of the blood through the liver and larger internal vessels, will likewise lessen the secretion of bile, and therefore relieve the sickness and anxiety at the stomach, from thence arising, as well as the difficulty of breathing, and oppression of the *præcordia*; in short, if the first stage of this disease be suffered to pass unheeded, and the opportunity of bleeding be not embraced, the physician, however great his talents may be, will too often have the mortification of being a spectator of mischief, which he cannot then remedy, and of an event, which he can only deplore.

Secondly: Emetics. The efficacy of emetics in puerperal fever; in evacuating the stomach of bile, or removing nausea, has been admitted by the celebrated Drs. *Leake*, *Denman*, and *Clark*, but these are very disagreeable remedies; and their repetition is so frequently required for them to produce much effect, that I cannot admit that they are entitled to our notice, but as auxiliaries to bleeding, and never to be admitted in the first stage of many of the most inflammatory cases.

Thirdly: Cathartics. These are undoubtedly useful remedies, in the cure of this disease, and may be advantageously used in most in-

stances, particularly in such as are attended with costiveness, bilious symptoms, or *ischuria*. They are not, however, to be depended upon for effecting a cure, but are to be used in conjunction with other remedies, particularly with bloodletting, and the frequency of their repetition, is only to be determined by the circumstances requiring their exhibition.

Fourthly: Mercury. This remedy is to be exhibited in such cases as are obstinate and do not yield to remedies less disagreeable; and for the most part, in all cases where the disease is violent it should be administered in conjunction with other evacuants, nor need we fear its producing a salivation, for under such circumstances it is productive of the most salutary effects. And in very urgent or obstinate cases, after a liberal use of the lancet, together with the internal use of mercury, the ointment should be used externally, so as to induce a gentle ptyalism, which generally effects a cure.

Fifthly: Blisters. The advantage of these has been attributed to the effect of producing a new action; although this suggestion is not entirely satisfactory, we must be content with it, as we cannot more fully explain their *modus operandi*. But before using them, the inflammatory action should be properly reduced. They should be applied to the abdomen, or near the part affected, or they may be useful, applied to the

arms, thighs, and ankles; and repeated as often as occasion may require.

These are the remedies which I conceive to be proper during the inflammatory stage of the disease. But it sometimes happens that this fever assumes a chronic or typhoid form. In this case such remedies as will give tone and strength to the system ought to be used; such as *cinchona*, *serpentaria*, *colomba*, *quassia*, red wine, &c. together with a generous diet.

I cannot close this paper without committing to it, the many acknowledgements I feel myself under to the different professors of medicine in the University of Maryland, for the advantages they have been pleased to afford me. Accept, gentlemen, my most sincere wishes for your individual happiness and future prosperity; and that your merits may ever meet their just reward is the ardent wish of the author.

THE END.